

Examiner-Initiated Interview Summary	Application No. 10/806,810	Applicant(s) SUDA ET AL.	
	Examiner Sam Chuan C. Yao	Art Unit 1733	

All Participants:

(1) Sam Chuan C. Yao.

(2) Mr. Joseph Powers.

Status of Application: allowed

(3) _____

(4) _____

Date of Interview: 8 February 2007

Time: _____

Type of Interview:

☒ Telephonic

☐ Video Conference

☐ Personal (Copy given to: ☐ Applicant ☐ Applicant's representative)

Exhibit Shown or Demonstrated: ☐ Yes ☐ No

If Yes, provide a brief description:

Part I.

Rejection(s) discussed:

N/A

Claims discussed:

all

Prior art documents discussed:

Meier et al (US 5,169,700)

Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:

See Continuation Sheet

Part III.

☒ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.

☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.

(Examiner/SPE Signature)

(Applicant/Applicant's Representative Signature – if appropriate)

Continuation of Substance of Interview including description of the general nature of what was discussed: Examiner required for Counsel to elect between species which are shown in figure 5A and 5C. Counsel elected the species illustrated in figure 5A. On 02-09-07, Examiner informed Counsel that in order to define positively Meier et al, where reinforcing layers appear to be coupled separably between insulating layers but around a peripheral flange portion of a finished insulating batt (see figure 7), Applicant needs to amend claim 44 to make clear that the separable coupling of two reinforcing layers must be disposed IN between the pair of insulating layers. Counsel agreed. Participant agreed to rejoin all claims so long as this essential limitation is present in all independent claims. In passing, Examiner suggested for Counsel to review the references cited in the last office action as well as Klose (US 4,977,750) before filing a divisional application which covers an embodiment illustrated in figure 5C. Counsel agreed.

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FACSIMILE TRANSMITTAL SHEET

TO: Examiner Sam Chuan C. Yao
Group Art Unit: 1733
Confirmation No.: 2913
Serial No.: 10/806,810
Attorney Docket No.: D0932-00444
In re: Suda et al.

FIRM/COMPANY: U.S. Patent and Trademark Office

FACSIMILE NUMBER: 571-273-1224

**CONFIRMATION
TELEPHONE:** 571-272-1171

FROM: Joseph A. Powers

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DATE: February 9, 2007

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TOTAL # OF PAGES: 9
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PATENT

**D0932-0444
[I-8876]**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: **David I. Suda et al.**

Examiner: **Samchuan Cua Yao**

Serial No.: **10/806,810**

Group Art Unit: **1733**

Filed: **March 23, 2004**

Confirmation No.: **2913**

For: **REINFORCED FIBROUS INSULATION PRODUCT AND METHOD OF
REINFORCING SAME**

Commissioner for Patents
Alexandria VA, 22313-1450

Sir:

AMENDMENT

I. Introductory Comments

Per our telephone conversation, here is an amendment to capture the species related to separating the insulation product at an interface of the reinforcing layers.

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[I-8876]**II. Amendments to the Claims**

This listing and version of the claims replaces all prior versions and listings of the claims.

1. (currently amended) A batt insulation product comprising:

first and second insulation layers coupled together to form a batt, each insulation layer containing randomly oriented fibers bonded together by a binder, each insulation layer having first and second major surfaces and a pair of side portions; and

at least one prefabricated flexible reinforcing non-woven layer comprising randomly oriented glass fibers disposed between said insulation layers and extending along a length of said batt, said at least one reinforcing layer being directly bonded to a respective major surface of each of said insulation layers and forming a bond located in between the respective major surfaces of said insulation layers along said respective major surfaces, wherein the thickness of each of said insulation layers is substantially greater than the thickness of said reinforcing layer,

wherein said batt comprises a plurality of said flexible reinforcing non-woven layers disposed between said first and second insulation layers and extending along the length of said batt,

wherein said plurality of reinforcing non-woven layers comprises at least two reinforcing layers disposed substantially parallel to said major surfaces and each other, and

wherein said at least two reinforcing non-woven layers are coupled together along respective faces in between the insulation layers, whereby said insulation product is separable at an interface of said at least two reinforcing non-woven layers to form at least two insulation products.

2. (canceled)

3. (canceled)

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4. (canceled)

5. (canceled)

6. (canceled)

7. (canceled)

8. (previously presented) The insulation product of claim 1, wherein said insulation batt comprises three stacked insulation layers each separated by at least one prefabricated flexible reinforcing non-woven layer comprising glass fibers.

9. (original) The insulation product of claim 8, wherein each of said insulation layers has an insulated effectiveness (R-value) between about R-2 to R-38.

10-11. (canceled)

12. (currently amended) The insulation product of claim 1, wherein said batt is heated to cure said binder at a temperature between about 300-600°F; and

wherein said glass fibers ~~reinforcing layer comprises randomly oriented fibers~~ having a melting temperature above about said curing temperature, said reinforcing non-woven layer being bonded to said insulation layers at least in part by said binder.

13-14. (canceled)

15. (original) The insulation product of claim 1, further comprising a vapor retarder facing layer disposed on at least one of said major surfaces.

16. (original) The insulation product of claim 15, wherein said vapor retarder facing layer comprises a Kraft paper coated with a bituminous material or a polymeric facing coated with an adhesive.

17-35. (canceled)

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36. (previously presented) The insulation product of claim 1, wherein said batt has first and second major surfaces, said insulation product further comprising:

at least one nonwoven facing comprising randomly oriented glass fibers adhered to at least one of said first and second major surfaces of said batt.

37-40. (canceled)

41. (previously presented) The insulation product of claim 36, further comprising a vapor retarder facing layer disposed on at least one of said major surfaces of said batt.

42. (original) The insulation product of claim 41, wherein said vapor retarder facing layer comprises a Kraft paper coated with a bituminous material or a polymeric facing coated with an adhesive.

43. (previously presented) The insulation product of claim 36, wherein said batt has a density of less than about 2.0 pounds per cubic foot.

44. (currently amended) An insulation product comprising:

first and second insulation layers coupled together to form a batt, each insulation layer containing randomly oriented fibers bonded together by a binder, each insulation layer having first and second major surfaces and a pair of side portions; and

a plurality of flexible reinforcing glass nonwoven layers disposed between said first and second insulation layers and extending along a length of said batt, said reinforcing layers disposed substantially parallel to said major surfaces and each other, wherein said at least two reinforcing layers are directly coupled together in between said insulation layers along respective faces, whereby said insulation product is separable at an interface of said reinforcing layers to form at least two insulation products.

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45. (previously presented) The insulation product of claim 44, wherein said insulation product is separable by hand.

46. (previously presented) The insulation product of claim 44, wherein each of said flexible reinforcing layers has a thickness between about .0059-.0066 inches.

47. (previously presented) The insulation product of claim 44, wherein said flexible reinforcing layers are bonded to said insulation layers at least in part with said binder.

48. (previously presented) The insulation product of claim 47, wherein said flexible reinforcing layers are bonded together between said insulation layers by said binder, said bond between said reinforcing layers being weaker than a bond between said flexible reinforcing glass layers and said insulation layers.

49. (currently amended) A batt insulation product comprising:

first and second low density insulation layers coupled together to form a batt, each insulation layer containing randomly oriented glass fibers bonded together with a binder, each insulation layer having first and second major surfaces and a pair of side portions; and

a plurality of prefabricated flexible reinforcing non-woven tissue layers comprising bonded glass fibers disposed between said insulation layers and extending along a length of said batt, said plurality of tissue layers having a first face bonded to a major surface of said first insulation layer at least in part with said binder and a second face bonded to a major surface of said second insulation layer at least in part with said binder, whereby said insulation layers are bonded together along said major surfaces,

wherein the thickness of said insulation layers is substantially thicker than the thickness of said tissue layer, ~~and~~

wherein each of said tissue layers has a tensile strength along said length greater than the tensile strengths of said insulation layers, and

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wherein said plurality of tissue layers are directly coupled together in between said insulation layers along opposing faces at least in part with said binder, whereby said insulation product is separable at an interface of said reinforcing layers to form at least two insulation products.

50. (previously presented) The insulation product of claim 49, wherein the thickness of each of said insulation layers is between about 1.0-14.0 inches and the thickness of said tissue layer is less than about 10 mils.

51. (currently amended) The insulation product of Claim 1, wherein said plurality of ~~at least one~~ reinforcing layers is bonded to said insulation layers at least in part with said binder.

52. (canceled)

53. (canceled)

54. (previously presented) The insulation product of claim 47, wherein said flexible reinforcing layers are bonded together at said interface by said binder.

55. (currently amended) A batt insulation product comprising:

first and second low density insulation layers coupled together to form a batt, each insulation layer containing randomly oriented glass fibers bonded together with a binder, each insulation layer having first and second major surfaces and a pair of side portions; and

a plurality of prefabricated flexible reinforcing non-woven tissue layers comprising bonded glass fibers disposed between said insulation layers and extending along a length of said batt, said plurality of tissue layers being bonded to major surfaces of both of said insulation layers by said binder, whereby said insulation layers are bonded together along said major surfaces,

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wherein the thickness of said insulation layers is substantially thicker than the thickness of said tissue layer, and

wherein said plurality of reinforcing layers are directly coupled together in between said insulation layers along opposing faces by said binder, whereby said insulation product is separable at an interface of said reinforcing layers to form at least two insulation products.

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[I-88761]**III. Summary of Amendments**

Claim 1 now recites:

“said at least one reinforcing layer being directly bonded to a respective major surface of each of said insulation layers and forming a bond located in between the respective major surfaces of said insulation layers”

“wherein said at least two reinforcing non-woven layers are coupled together along respective faces in between the insulation layers”.

Claims 44, 49 and 55 have been amended in a similar manner.

Respectfully submitted,

Dated: 2/9/07
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